[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0946; Directorate Identifier 2011-NE-02-AD; Amendment 39-16926; AD 2012-02-03]

RIN 2120-AA64

Airworthiness Directives; CFM International, S. A. Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain CFM International, S. A. model CFM56-5B series turbofan engines. This AD was prompted by a normal quality sampling at CFM International, S.A. that isolated a production batch of fan blades with nonconforming geometry of mid-span shroud tips of the fan blades. This AD requires removing from service certain serial number (S/N) fan blades. We are issuing this AD to prevent an inflight shutdown (IFSD) of one or more engines following foreign object damage (FOD) or a bird strike.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this AD, contact CFM International, Inc., Aviation Operations Center, 1 Neumann Way, M/D Room 285, Cincinnati, OH 45125; International Phone: 1-513-552-3272; USA Phone: 877-432-3272; International Fax: 1-513-552-3329; USA Fax: 877-432-3329; email: geae.aoc@ge.com; or CFM International SA, Customer Support Center, International Phone: 33 1 64 14 88 66; Fax:

33 1 64 79 85 55; email: snecma.csc@snecma.fr. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Martin Adler, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7157; fax: 781-238-7199; e-mail: martin.adler@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM published in the Federal Register on October 18, 2011 (76 FR 64293). That NPRM proposed to require removing from service within 5,000 flight hours (FHs) after the effective date of the AD, any fan blade, P/N 338-002-114-0, that has an S/N listed in CFM International Service Bulletin (SB) No. CFM56-5B S/B 72-0777, Revision 1, dated April 11, 2011. After the effective date of the AD, it would also prohibit installing any fan blade, P/N 338-002-

114-0, that has an S/N listed in Appendix A of CFM International SB No. CFM56-5B S/B 72-0777, Revision 1, dated April 11, 2011.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and the FAA's response to each comment.

Request to Reword the Unsafe Condition Statement

One commenter, CFM International, S.A., requested that we reword the unsafe condition statement "This defect would cause the upper panel of the fan blade to be liberated following FOD or a bird strike and likely result in an in-flight shutdown (IFSD)" to "This non-conforming condition could increase the potential for damage during a foreign object impact. This secondary damage could include liberation of the upper panel of the blade, which increases the potential for in-flight shutdown." The commenter stated that the outcome of FOD or bird strike event will not necessarily result in an outer panel release, therefore it is suggested that the sentence be replaced to more accurately reflect the possible outcome.

We agree. The unsafe condition increases the likelihood of separation after an event, but will not result in separation in every case. We changed paragraph (d) of the AD, which is the only place in the final rule that this information appears, to state that this defect could cause the upper panel of the fan blade to be liberated following FOD or a bird strike and likely result in an IFSD.

Request for Terminating Action

One commenter, American Airlines, requested that we establish a terminating action that would specify a point at which the AD would be considered closed. This would allow the airline to limit the time that it must verify compliance with the AD and reduce operating costs.

We do not agree. The AD as written clearly limits the fan blade serial numbers affected. The affected blades must never be installed in operating engines. We have no mechanism to assure that the affected fan blades have been completely purged from all inventories and so we can not stipulate when the AD is no longer applicable. We did not change the AD.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously.

Costs of Compliance

We estimate that this AD will affect 16 engines installed on airplanes of U.S. registry. We also estimate that it will take about 6 work-hours per engine to perform the required actions and that the average labor rate is $85 per work-hour. Required parts will cost about $47,830 per engine. Based on these figures, we estimate the total cost of this AD to U.S. operators to be $773,440.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2012-02-03 **CFM International, S.A.:** Amendment 39-16926; Docket No. FAA-2011-0946; Directorate Identifier 2011-NE-02-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to CFM International, S.A. CFM56-5B1/3, CFM56-5B2/3, CFM56-5B3/3, CFM56-5B4/3, CFM56-5B5/3, CFM56-5B6/3, CFM56-5B7/3, CFM56-5B8/3, CFM56-5B9/3, CFM56-5B3/3B1, and CFM56-5B4/3B1 engines equipped with fan blades part number (P/N) 338-002-114-0 that have a serial number (S/N) listed in Appendix A of CFM International Service Bulletin (SB) No. CFM56-5B S/B 72-0777, Revision 1, dated April 11, 2011.

(d) Unsafe Condition

This AD was prompted by a normal quality sampling at CFM International. S.A. that isolated a production batch of fan blades with nonconforming geometry of mid-span shroud tips of the fan blades. This defect could cause the upper panel of the fan blade to be liberated following foreign object damage (FOD) or a bird strike, and likely result in an inflight shutdown (IFSD). We are issuing this AD to prevent an IFSD of one or more engines following FOD or a bird strike.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(f) Remove Fan Blades From Service

For engines that have fan blades, P/N 338-002-114-0, with S/Ns listed in Appendix A of CFM International SB No. CFM56-5B S/B 72-0777, Revision 1, dated

April 11, 2011, remove the fan blades from service within 5,000 flight hours after the effective date of this AD.

(g) Installation Prohibition

After the effective date of this AD, do not install any fan blade, P/N 338-002-114-0, that has a S/N listed in Appendix A of CFM International SB No. CFM56-5B S/B 72-0777, Revision 1, dated April 11, 2011, onto any engine.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(i) Related Information

For more information about this AD, contact Martin Adler, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7157; fax: 781-238-7199; e-mail: martin.adler@faa.gov.

(j) Material Incorporated by Reference

(1) You must use the following service information to identify the fan blade S/Ns affected by this AD. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51 of the following service information.

(2) CFM International Service Bulletin No. CFM56-5B S/B 72-0777, Revision 1, dated April 11, 2011.

(3) For service information identified in this AD, contact CFM International, Inc., Aviation Operations Center, 1 Neumann Way, M/D Room 285, Cincinnati, OH 45125; International Phone: 1-513-552-3272; USA Phone: 877-432-3272; International Fax: 1-513-552-3329; USA Fax: 877-432-3329; email: geae.aoc@ge.com; or CFM

International SA, Customer Support Center, International Phone: 33 1 64 14 88 66; Fax: 33 1 64 79 85 55; email: snecma.csc@snecma.fr.

(4) You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Burlington, Massachusetts, on January 19, 2012.

Peter A. White,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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